Textbook Alignment to the Utah Core – Algebra 1

This alignment has been completed using an "Independent Alignment Vendor" from the USOE approved list (www.schools.utah.gov/curr/imc/indvendor.html.) Yes _x_ No _____

Name of Company and Individual Conducting Alignment:
Jill Baumer-Pina

A "Credential Sheet" has been completed on the above company/evaluator and is (Please check one of the following):

X On record with the USOE.

☐ The "Credential Sheet" is attached to this alignment.

Instructional Materials Evaluation Criteria (name and grade of the core document used to align): Algebra 1 Core Curriculum

Title: *Algebra: Concepts and Applications* © 2008 **ISBN#:** 0-07-879912-0

Publisher: Glencoe/McGraw-Hill

Overall percentage of coverage in the *Student Edition (SE) and Teacher Edition (TE)* of the Utah State Core Curriculum: _____% **Overall percentage of coverage in *ancillary materials* of the Utah Core Curriculum: _____%**				
STANDARD I: Students will expand number sense to understand, perform operations, and solve problems with real numbers.				
Percentage of coverage in the *student and teacher edition* for Standard I:_____ %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard I: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 1.1: Represent real numbers as points on the number line and distinguish rational numbers from irrational numbers.				
a.	Define a rational number as a point on the number line that can be expressed as the ratio of two integers, and points that cannot be so expressed as irrational.	**Student Edition:** 46-52, 61, 64, 719 **Teacher Wraparound Edition:** AE 47-50; FMC 48; PE 48		
b.	Classify numbers as rational or irrational, knowing that rational numbers can be expressed as terminating or repeating decimals and irrational numbers can be expressed as non-terminating, non-repeating decimals.	**Student Edition:** 46-52, 61, 64, 719 **Teacher Wraparound Edition:** AE 47-50; I 47; FMC 48, 489; PE 48		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
d.	Classify *pi* and square roots of non-perfect square numbers as irrational.	**Student Edition:** 46-51, 61, 719 **Teacher Wraparound Edition:** AE 47-50; DI 49; FMC 48, 489; I 47; PE 48; SQ 46		
d.	Place rational and irrational numbers on a number line between two integers.	**Student Edition:** 46-52, 61, 64, 76, 481-485, 719 **Teacher Wraparound Edition:** AE 48-49, 481-483; DI 49; FMC 48		
Objective 1.2: Compute fluently and make reasonable estimates with rational and irrational numbers.				
a.	Simplify, add, subtract, multiply, and divide expressions with square roots.	**Student Edition:** 528-534, 536-540, 546, 548, 554, 567-568, 571, 737 **Teacher Wraparound Edition:** AE 529-531, 537; FMC 529, 530, 537; PAA 534, 540; PE 529, 537; SQ 536-537		
b.	Evaluate and simplify numerical expressions containing rational numbers and square roots using the order of operations.	**Student Edition:** 10-14, 15-20, 69, 76, 92-97, 98-103, 115, 132-133, 135, 182 #3, 416 #2, 528-534, 536-540, 546, 548, 554, 567-568 **Teacher Wraparound Edition:** AE 11-12, 16-17, 529-531, 537; PAA 534, 540; SQ 528		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Compute solutions to problems, represent answers in exact form, and determine the reasonableness of answers.	**Student Edition:** 78-84, 85-90, 91, 92-97, 98-103, 104, 122-128, 219, 246 #52, 247 #24-#25, 258, 344 #38, 480-485, 486-491, 493-499, 500-501, 578-580 *Algebra Lab* 91, 500-501 *Graphing Calculator Lab* 219 **Teacher Wraparound Edition:** PAA 485, 488; PE 579, 119		
d.	Calculate the measures of the sides of a right triangle using the Pythagorean Theorem.	**Student Edition:** 549-554, 569, 571, 572-573, 639 #9, 738, 767 #12, 768 #15 **Teacher Wraparound Edition:** AE 550-551; FMC 551; PAA 551		

STANDARD II: Students will extend concepts of proportion to represent and analyze linear relations.				
Percentage of coverage in the *student and teacher edition* for Standard II:_____ %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard II: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 2.1: Represent and analyze the slope of a line.				
a.	Identify the slope of a line when given points, a graph, or an equation.	**Student Edition:** 186, 187-195, 196-202, 203, 204-209, 210-211, 212, 213-218, 236-241 *Algebra Lab* 186 *Graphing Calculator Lab* 197, 203, 210-211 **Teacher Wraparound Edition:** AE 188-191, 197-199, 205-206, 214-216, 237-239; FMC 190, 191, 206; FTE 195; GCL 197; PAA 209; SQ 187-188, 213		
b.	Identify horizontal and vertical lines given the equations or slopes.	**Student Edition:** 189-193, 236-238 **Teacher Wraparound Edition:** AE 190-191, 222; FMC 190, 191, 238; I 190, 222; PAA 215; PE 190, 191; SQ 236		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Determine the effect of changes in slope or *y*-intercept t in $y = mx + b$.	**Student Edition:** 196-202, 203, 204-209, 210-211, 236-241, 747 *Algebra Lab* 237 *Graphing Calculator Lab* 197, 203, 210-211 **Teacher Wraparound Edition:** AE 237-239; AL 237; DI 206; FCA 203, 211; GCL 198; I 237; PAA 209; PE 205, SQ 204		
d.	Determine and explain the meaning of slopes and intercepts using real-world examples.	**Student Edition:** 186, 187-195, 196-202, 203, 204-209, 212, 213-218, 227-233, 747, 772 *Algebra Lab* 186 *Graphing Calculator Lab* 203 **Teacher Wraparound Edition:** AE 188-189, 214-216, 228-230; DI 206; MRWD 206; PAA 195; RWC 192, 200, 207		

OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 2.2Model and interpret problems having a constant rate of change using linear functions.				
a.	Write algebraic expressions or equations to generalize visual patterns, numerical patterns, relations, data sets, or scatter plots.	**Student Edition:** 165-171, 172-176, 179-180, 181, 195, 198-202, 204-209, 212, 227-233, 246, 247, 509, 724, 772 *Algebra Lab* 509 **Teacher Wraparound Edition:** AE 166-167, 173-174, 198-199, 205-206; FMC 167; PE 167		
b.	Represent linear equations in slope-intercept form, $y = mx + b$, and standard form, $Ax + By = C$.	**Student Edition:** 155-161, 203, 204-209, 210-211, 212, 213-218, 220-225, 226, 236-241, 725-726 *Graphing Calculator Lab* 203, 210-211 *Reading Math* 226 **Teacher Wraparound Edition:** AE 156, 205-206, 214-216, 221-222, 247-248; FCA 211; FMC 156, 215; PAA 209, 225; PE 156, 222		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Distinguish between linear and non-linear functions by examining a table, equation, or graph.	**Student Edition:** 155-161, 178, 211, 515-516, 723 *Algebra Lab* 515-516 **Teacher Wraparound Edition:** AE 156-158; FMC 156; PAA 154; PE 156; SQ 155		
d.	Interpret the slope of a linear function as a rate of change in real-world situations.	**Student Edition:** 186, 187-195, 196-202, 203, 212, 213-218, 227-233, 243-246, 247, 724-725, 747 *Algebra Lab* 186 *Graphing Calculator Lab* 203 **Teacher Wraparound Edition:** AE 188-191, 199, 214-216, 228-230; FMC 190, 191; FTE 195; PAA 195; SQ 187-188		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
Objective 2.3: Represent and analyze linear relationships using algebraic equations, expressions, and graphs.				
a.	Write the equation of a line when given two points or the slope and a point on the line.	**Student Edition:** 204-209, 212, 213-218, 220-225, 227-233, 236-241, 243-246, 247, 249, 752-725 **Teacher Wraparound Edition:** AE 205-206, 214-216, 221-222, 228-229, 237-239; DI 206; FMC 206, 221; PAA 215, 241; SQ 204, 220-221		
b.	Approximate the equation of a line given the graph of a line.	**Student Edition:** 172-176, 196-202, 204-209, 210-211, 227-233, 234-235, 246, 247, 726 *Algebra Lab* 228 *Graphing Calculator Lab* 210-211, 234-235 **Teacher Wraparound Edition:** AE 173-174, 198-199, 205, 228-230; AL 228; FMC 229		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Identify the *x*- and *y*-intercepts from an equation or graph of a line or a table of values.	**Student Edition:** 155-161, 162-163, 179, 181, 204-209, 210-211, 212, 213-217, 477, 725 *Graphing Calculator Lab* 162-163, 210-211 **Teacher Wraparound Edition:** AE 156-158, 205-206; FMC 206, 215; I 158; PAA 209, 215		
d.	Graph linear relations and inequalities by plotting points, by finding *x*- and *y* intercepts, or by using the slope and any point on the line.	**Student Edition:** 155-161, 162-163, 172-176, 179, 181, 196-202, 204-209, 210-211, 212, 213-218, 236-241, 334-339, 341-345, 723, 725-726, 730 *Graphing Calculator Lab* 162-163, 210-211, 342 **Teacher Wraparound Edition:** FMC 336; GCL 342		

STANDARD III: Students will develop fluency with the language and operations of algebra to analyze and represent relationships.				
Percentage of coverage in the *student and teacher edition* for Standard III:_____ %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard III: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 3.1: Simplify polynomials and the quotient of monomials.				
a.	Simplify and evaluate monomial expressions and formulas.	**Student Edition:** 358-363, 366-373, 389, 403, 411, 415, 730-731, 750 *Graphing Calculator Lab* 367 **Teacher Wraparound Edition:** AE 359-361, 367-370; GCL 367; I 367; PAA 363; SM 360; SQ 358, 366		
b.	Add and subtract polynomials.	**Student Edition:** 382-383, 384-389, 395, 412, 415, 477, 731 *Algebra Lab* 382-383 **Teacher Wraparound Edition:** AE 385-386; FCA 383; PAA 388; PE 385; SQ 384		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Multiply monomials by a polynomial.	**Student Edition:** 358-363, 390-395, 413, 415, 732 **Teacher Wraparound Edition:** AE 359-361, 391-392; FMC 391; I 392; MF 392; PAA 395; SM 360; SQ 390		
d.	Multiply binomials.	**Student Edition:** 396-397, 398-403, 404-409, 413-414, 415, 424, 431, 452, 732 *Algebra Lab* 396-397 **Teacher Wraparound Edition:** AE 399-400, 405-406; CE 401; FCA 397; FMC 399, 406; I 399, 405; PAA 403; SQ 398-399, 404		
e.	Simplify the quotient of monomials using positive exponents.	**Student Edition:** 366-373, 381, 389, 411, 485, 731 *Graphing Calculator Lab* 367 **Teacher Wraparound Edition:** AE 367-370; GCL 367; I 367; PE 367, 368, 369, 370; SQ 366		

OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 3.2: Solve and interpret linear equations and inequalities in various situations including real-world problems.				
a.	Solve single-variable linear equations and inequalities algebraically and graphically.	**Student Edition:** 78-83, 85-90, 91, 92-97, 98-103, 104, 105-110, 111-115, 116, 122-128, 131-134, 135, 294-299, 300, 301-307, 308-313, 315-320, 321, 347-349, 720-721, 728-729 *Algebra Lab* 91, 300 *Reading Math* 116		
b.	Solve real-world problems involving constant rates of change.	**Student Edition:** 186, 187-195, 196-202, 203, 204-209, 212, 213-217 *Algebra Lab* 186 *Graphing Calculator Lab* 203 **Teacher Wraparound Edition:** AE 188-191, 197-199, 206, 215-216; FMC 190, 191; MRWD 206; PAA 195; PE 191; RWC 192, 200; SQ 187-188, 196, 204		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
.	Solve equations for a specified variable.	**Student Edition:** 117-121, 128, 134, 135, 141, 148 #40-#41, 224 #45-#47, 241 #43, 251, 403, 722, 745 #14, 763 #8 **Teacher Wraparound Edition:** AE 118-119; FMC 119; PAA 121; PE 119		
d.	Solve proportions that include algebraic first-degree expressions.	**Student Edition:** 105-110, 111-115, 116, 133-134, 135, 172-176, 191 Ex 7, 193, 560-565, 570, 579, 626-632, 738-739 *Reading Math* 116 **Teacher Wraparound Edition:** AE 106-107, 112-113, 191 Ex 7, 561-562, 627-629; PAA 112; PE 113		

OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 3.3: Solve and interpret pairs of linear equations and inequalities.				
a.	Solve systems of two linear equations graphically and algebraically with and without technology.	**Student Edition:** 252, 253-258, 259, 260-265, 266-270, 271, 272-278, 280-284, 290-291, 369, 491, 727-728, 748 *Graphing Calculator Lab* 259 *Spreadsheet Lab* 252 **Teacher Wraparound Edition:** AE 254-255, 261-262, 267-268, 273-274, 281-282; FMC 262, 268, 282; PAA 254, 270		
b.	Determine the number of possible solutions for a system of two linear equations.	**Student Edition:** 253-258, 260-265, 266-270, 271, 278, 286, 289, 727 **Teacher Wraparound Edition:** AE 254-255, 262; FMC 262; PAA 254		
c.	Graph a system of linear inequalities and identify the solution.	**Student Edition:** 341-345, 364, 730, 749 #16-#20 *Graphing Calculator Lab* 342 **Teacher Wraparound Edition:** AE 342-343; DI 342; FTE 345; GCL 342; NTM 345; SQ 341		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
Objective 3.4: Factor polynomials with common monomial factors and factor simple quadratic expressions.				
a.	Find the greatest common monomial factor of a polynomial.	**Student Edition:** 421-424, 426-431, 440, 442, 455-456, 461-462, 465, 575, 584-587, 733, 739-740 **Teacher Wraparound Edition:** AE 421-422, 427, 585; FMC 421, 427, 442; I 427; PAA 421, 428; SQ 426		
b.	Factor trinomials with integer coefficients of the form $x^2 + bx + c$.	**Student Edition:** 432-433, 434-439, 440, 461, 463, 465, 477, 575, 585-587, 591-593, 596-599, 601-606, 607, 632, 634-636, 637, 733, 739-741 *Algebra Lab* 432-433 **Teacher Wraparound Edition:** AE 435-437, 584, 602-603; AL 432-433; PAA 436		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Factor the difference of two squares and perfect square trinomials.	**Student Edition:** 447-452, 453, 454-460, 461, 464, 465, 477, 486-490, 734 *Algebra Lab* 447 *Reading Lab* 453 **Teacher Wraparound Edition:** AE 448-450, 455-457, 488; AL 448; CE 456; FMC 449, 456; PAA 452, 460; PE 455		
Objective 3.5: Solve quadratic equations using factoring or by taking square roots.				
a.	Solve quadratic equations that can be simplified to the form $x^2 = a$ where $a \geq 0$ by taking square roots.	**Student Edition:** 457-459, 464, 549-554, 559, 569, 738 **Teacher Wraparound Edition:** AE 550-551		
b.	Solve quadratic equations using factoring.	**Student Edition:** 436-439, 440, 443-446, 449-452, 453, 456-460, 462-464, 465, 485, 493, 733-734 *Reading Math* 453 **Teacher Wraparound Edition:** AE 436-437, 443, 449-450, 456-457; I 443; PAA 446, 452		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
c.	Write a quadratic equation when given the solutions.	**Teacher Wraparound Edition:** PAA 446		
STANDARD IV: Students will understand concepts from statistics and apply statistical methods to solve problems.				
Percentage of coverage in the *student and teacher edition* for Standard IV:_____ %		**Percentage of coverage not in student or teacher edition, but covered in the *ancillary material* for Standard IV: _____%**		
OBJECTIVES & INDICATORS		**Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)**	**Coverage in *Ancillary Material* (titles, pg #'s, etc.)**	***Not covered in TE, SE or ancillaries*** ✓
Objective 4.1: Objective 1: Summarize, display, and analyze bivariate data.				
a.	Collect, record, organize, and display a set of data with at least two variables.	**Student Edition:** 186, 188 Ex 2, 192-193, 196, 203, 212, 213-215, 227-233, 234-235, 470, 509 *Algebra Lab* 186, 228, 509 *Graphing Calculator Lab* 203, 234-235, 470 **Teacher Wraparound Edition:** AE 189 Ex 2, 228-230; AL 228; FCA 235, 516; FMC 229; PAA 233		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
b.	Determine whether the relationship between two variables is approximately linear or non-linear by examination of a scatter plot.	**Student Edition:** 227-233, 234-235, 515-516 *Algebra Lab* 228 *Graphing Calculator Lab* 234-235, 515-516 **Teacher Wraparound Edition:** AE 228-229; AL 228; FCA 235, 516; FMC 229; SQ 227-228		
c.	Characterize the relationship between two linear related variables as having positive, negative, or approximately zero correlation.	**Student Edition:** 227-233, 234-235, 515-516 *Algebra Lab* 228 *Graphing Calculator Lab* 234-235, 515-516 **Teacher Wraparound Edition:** AL 228; FCA 516; PAA 233; SQ 227-228; TT 234		
Objective 4.2: Estimate, interpret, and use lines fit to bivariate data.				
a.	Estimate the equation of a line of best fit to make and test conjectures.	**Student Edition:** 227-233, 234-235 *Algebra Lab* 228 *Graphing Calculator Lab* 234-235 **Teacher Wraparound Edition:** AE 228-229; AL 228; FCA 516; FMC 229; SM 230; SQ 227-228		

OBJECTIVES & INDICATORS		Coverage in *Student Edition(SE) and Teacher Edition (TE)* (pg #'s, etc.)	Coverage in *Ancillary Material* (titles, pg #'s, etc.)	*Not covered in TE, SE or ancillaries* ✓
b.	Interpret the slope and *y*-intercept of a line through data.	**Student Edition:** 227-233, 234-235 *Algebra Lab* 228 *Graphing Calculator Lab* 234-235 **Teacher Wraparound Edition:** AE 228-230; AL 228; SQ 227-228		
c.	Predict *y*-values for given *x*-values when appropriate using a line fitted to bivariate numerical data.	**Student Edition:** 227-233, 234-235 *Algebra Lab* 228 *Graphing Calculator Lab* 234-235 **Teacher Wraparound Edition:** AE 228-229; AL 228; FCA 516; FMC 229; SM 230; SQ 227-228		